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ABSTRACT

This summary report is intended to provide answers to questions that local school personnel may have concerning the 1980-81 South Carolina Statewide Testing Program. The Comprehensive Tests of Basic Skills, Form S(CTBS/S), which measure reading, language, mathematics, science, social studies, and reference skills, were administered to 134,753 South Carolina students in grades 4, 7, and 10. The results for each subject area are presented for all students and Title I students. The major changes in the 1980-81 Statewide Testing Program was the move to testing at grades 4, 7, and 10 from grades 3, 6, and 11. This change established a new baseline year in terms of comparison of test data across years. 1980-81 data are not comparable with results from previous years due to this grade level testing change. Longitudinal comparisons may be made which compare the same students across the years from 1976-77 to 1980-81.
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SOUTH CAROLINA STATEWIDE TESTING PROGRAM 1980-81

SUMMARY REPORT

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THE OFFICE OF RESEARCH REPORT SERIES

SOUTH CAROLINA STATEWIDE TESTING PROGRAM 1980-81

SUMMARY REPORT

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PREFACE

This summary report is intended to provide answers to questions that local school personnel and others may have about the 1980-81 South Carolina Statewide Testing Program. These questions primarily center on the operation and results of the testing program.

In Appendix A, tables of the State's 1980-81 results are presented for All Students and Title I Students in Grades 4, 7, and 10.

ABSTRACT

The primary purpose of the 1980-81 Statewide Testing Program was to assess the achievement of 4th, 7th, and 10th grade students in South Carolina's public schools. The results from the Statewide Testing Program provide educators with information which facilitates the decision-making process at the State, district, and school levels.

A standardized norm-referenced test, the Comprehensive Tests of Basic Skills, Form S (CTBS/S), was the instrument used to measure achievement in the basic skill areas of Reading, Language, Mathematics, Reference Skills, Science, and Social Studies.

For the fifth consecutive year, two levels of the test were administered. Either Level 1 or Level 2 of the CTBS/S was administered to 4th grade students on an individual student basis; either Level 2 or Level 3 of the CTBS/S was administered to 7th grade students on an individual student basis; and either Level 3 or Level 4 of the CTBS/S was administered to 10th grade students on an individual student basis.

All 92 South Carolina school districts participated in the 1980-81 Statewide Testing Program at all three grade levels. Tested as part of the 1980-81 Statewide Testing Program during late March and early April were 134,753 South Carolina 4th, 7th, and 10th graders. At Grade 4, 46,601 students were tested; at Grade 7, 44,309 students were tested; and, at Grade 10, 43,843 students were tested.

In all three grades, more than 40 percent of South Carolina's students scored above the national average in the skill areas of Reference Skills, Science, and Social Studies.

In the area of Reading, 47.8 percent of South Carolina's 4th graders surpassed the national average; while 45.7 percent of the 7th graders and 37.7 percent of the 10th graders exceeded the national average.

In the area of Language, 52.5 percent of South Carolina's 4th graders, 45.2 percent of the 7th graders, and 39.8 percent of the 10th graders scored above the national average.

In Mathematics, 46.7 percent of the 4th graders scored above the national average with 46.2 percent of the 7th graders and 38.1 percent of the 10th graders scoring above the national average.

The highest average scores for South Carolina's students were recorded by 4th and 7th graders in the areas of Reference Skills and Social Studies and by 4th graders in Language and 7th graders in Science. In Reference

Skills, 59.9 percent of the 4th graders and 53.1 percent of the 7th graders scored above the national average. In Social Studies, 50.7 percent of the 4th and 7th graders in South Carolina scored above the national average. In the area of Language, 52.5 percent of the 4th graders scored above the national average and 50.2 percent of the 7th graders scored above the national average in Science.

Fourth grade students consistently outperformed 7th and 10th grade students relative to their national normative groups in the three basic skill areas of Reading, Language, and Mathematics. Fourth graders also outscored 7th and 10th graders in Reference Skills. However, 7th graders outscored 4th graders in the area of Science.

This year evidenced an increased number of South Carolina students at each grade level scoring above the national average. In view of the fact that the characteristics of the national sample differ considerably from the characteristics of students in South Carolina in terms of socioeconomic status and other factors, the results from the 1980-81 Statewide Testing Program continue the encouraging trend of previous years.

Further encouragement came from a comparison made between 1980 3rd graders and the same students as 4th graders in 1981. All skill areas with the exception of Science reflected slightly improved performance. These improvements ranged from 1 percent in Reading Total to 2.5 percent in Language Total.

This year's testing also provided the unique opportunity to compare three years of test results for the same group of students as 3rd graders in 1977, as 6th graders in 1980 and 7th graders in 1981. The percentage of students scoring above the national average consistently increased in Reading Total, Mathematics Total, and Social Studies. The most notable changes occurred from Grade 3 to Grade 6 with a 7.2 percent increase in Science and from Grades 6 to 7 with a 6.4 percent increase in Mathematics and a 4.9 percent increase in Social Studies.

A comparison was also made between the 1977 6th graders and their performance in 1981 as 10th graders. Interestingly, their performance increases were similar to those for the 1980 6th graders to 1981 7th graders in that Mathematics performance increased 5.7 percent and Social Studies increased 3.8 percent.

WHAT IS THE STATEWIDE TESTING PROGRAM?

The South Carolina Statewide Testing Program is designed to assess the achievement of students in South Carolina public schools. The State Department of Education through the Educational Assessment Section, Office of Research, is responsible for coordinating the Statewide Testing Program at the State level; while the District Test Coordinator is responsible for coordinating the Statewide Testing Program at the local level. The actual administration of the tests to the students is conducted by classroom teachers.

The groundwork for the Statewide Testing Program was laid in accordance with the federal regulations for Title III of the Elementary and Secondary Education Act during the Year 1970-71. The regulation stated:

The State Plan shall set forth a program for testing students in the elementary and secondary schools of the state...which describes the means of testing, including the types of tests and grade levels of students.

The South Carolina State Plan provided for the testing of student achievement at grade levels designated by the State Department of Education. The Comprehensive Tests of Basic Skills, Form S (CTBS/S), was adopted by the Department as the achievement test to be administered in the 1973-74 Statewide Testing Program; and the use of the CTBS/S has been continued through the 1980-81 Statewide Testing Program.

WHAT ARE THE PURPOSES OF THE STATEWIDE TESTING PROGRAM?

The primary purpose of the Statewide Testing Program is to provide a means of monitoring student achievement in South Carolina public schools. Within the State Department of Education, the testing program results are used in the evaluation of the Basic Skills Major Objective which is included in South Carolina's Five Year Plan for Continuous Upgrading of Education. Equally important, the test results provide educators with information which facilitates the decision-making process at the State, district, and school levels. Concurrently, the Statewide Testing Program provides a service to districts in that the program funds relieve a portion of the financial burden of the district testing programs and, in many

districts, constitutes a major part of districtwide testing programs. Since the spring administration of the program coincides with Title I testing, the testing program further services districts by supplanting testing for Title I program evaluations.

WHAT WERE THE OBJECTIVES OF THE 1980-81 STATEWIDE TESTING PROGRAM?

The objectives of the Statewide Testing Program were originally established in 1970-71 as part of the 4th grade testing program. These objectives, however, have been modified over the past eleven years to reflect the yearly changes in the testing program. Following are the objectives for the 1980-81 testing program:

1. to provide a valid measure of student achievement in the basic skill areas of Reading, Language, Mathematics, Reference Skills, Science, and Social Studies in Grades 4, 7, and 10;
2. to compare the achievement of 4th, 7th, and 10th grade students in South Carolina with the achievement of 4th, 7th, and 10th grade students in the nation, using the national normative data provided by the test publisher;
3. to determine the achievement levels of students in Grades 4, 7, and 10 in order to assist in the development of instructional objectives and to evaluate the degree of effectiveness of these objectives;
4. to fulfill the requirements of the Basic Skills Major Objective as specified in South Carolina's Five-Year Plan for Continuous Upgrading of Education;
5. to provide a measure of educational quality in South Carolina public schools; and
6. to encourage effective utilization of test data in guidance and instructional programs in Grades 4, 7, and 10.

WHAT ARE SOME CAUTIONS CONCERNING INTERPRETATIONS OF TEST RESULTS?

There are a number of cautions which should be mentioned when utilizing norm-referenced test data.

Norm-referenced testing is designed to allow educators to make comparisons between students or groups of students. Test questions are designed for the nation as a whole and measure global or nationwide instructional targets rather than more specific local objectives. Therefore, the possibility is strong that the content of a norm-referenced test may not have been taught in a given classroom, school, or district within the State. This possible content validity problem should be taken into account in interpreting the test results.

One of the major problems with norm-referenced testing is the grade equivalent score, as easy to abuse as it is to use. The most common abuse of the grade equivalent is to equate the score to grade level performance. If a 7th grade student obtains a grade equivalent score of 9.0 in the Spring on Level 3 of the CTBS/S, the result can only mean that the student is well above average compared to other 7th graders. The temptation is to label the student as a 9th grade achiever when, in fact, the student did not take a 9th grade test nor was the student's score compared to the scores of 9th grade students.

The grade equivalent, however, is useful in making comparisons between different groups of students on the same subtest. For example, the median grade equivalent in Reading Vocabulary for a class can be compared to the median grade equivalent in Reading Vocabulary for all students in the same school in the particular grade. However, the median grade equivalent for one subtest should not be compared with the median grade equivalent for another subtest. For example, the median grade equivalent for Reading Vocabulary should not be compared with the median grade equivalent for Reading Comprehension.

The value of the grade equivalent, as well as the national percentile, fluctuates considerably as a function of the raw score. An increase in one raw score point can mean an increase of as little as 0.1 grade equivalent or as much as 1.6 grade equivalents depending on the subtest under consideration. Hence, the relationship between the raw score and the grade equivalent should always be considered in the interpretation of grade equivalents.

If for some reason an educator finds the use of grade equivalents imperative, the mean grade equivalent is the least desirable grade

equivalent to use. To assure that the score is not an artifact of an unusual distribution of scores, the scale score grade equivalent (SGE) or the median grade equivalent would yield a more precise measure. Since the SGE is converted from the mean scale score, the SGE represents a more precise grade equivalent measure than the mean grade equivalent. The median grade equivalent is another grade equivalent that is not susceptible to unusual score distributions. The median also avoids the problem of ceiling and floor distortion that is inherent in using means. For the above reasons, the Department prefers to use medians when using grade equivalents.

A frequent misuse of standardized test data is the inclination among users of the data to equate high test scores with effective instruction. Entry characteristics of students such as socioeconomic factors and educational level of parents are strongly related to test performance. Comparisons of scores among schools and/or districts should not be made unless differences in the populations of students are considered as a part of the comparison.

WHO PARTICIPATED IN THE 1980-81 STATEWIDE TESTING PROGRAM?

With the advent of the Basic Skills Assessment Program tests at Grades 1, 2, 3, 6, 8, and 11, South Carolina school districts were polled to determine the advisability of continuing the Statewide Testing Program, and if continued, the grade levels at which testing was desired. Districts responded positively to continuing the program and preferred to move the grade level testing to three of the grades not assessed by the Basic Skills Assessment Program, Grades 4, 7, and 10. Therefore, the State Department of Education designated Grades 4, 7, and 10 as the grades to be tested in the 1980-81 Statewide Testing Program. All 92 South Carolina school districts participated in the testing program at Grades 4, 7, and 10 as required by the South Carolina Educational Finance Act of 1977.

Students enrolled in programs for the handicapped were included in the Statewide Testing Program unless their Individual Education Plans (IEP's) indicated that their participation would be inappropriate.

As part of the 1980-81 Statewide Testing Program, 134,753 South Carolina 4th, 7th, and 10th grade students were tested. Tested at the 4th grade level were 46,601 students. At the 7th grade level, 44,309 students were tested; and at the 10th grade level, 43,843 students were tested.

WHAT TEST WAS USED IN THE 1980-81 STATEWIDE TESTING PROGRAM?

The Comprehensive Tests of Basic Skills, Form S (CTBS/S), published by CTB/McGraw-Hill, was used in the 1980-81 Statewide Testing Program. The CTBS/S was administered to measure student achievement in the basic skill areas of Reading, Language, Mathematics, Reference Skills, Science, and Social Studies. Levels 1 and 2 of the CTBS/S were administered in Grade 4 on an individual student basis; Levels 2 and 3 of the CTBS/S were administered in Grade 7 on an individual student basis; and Levels 3 and 4 of the CTBS/S were administered on an individual student basis in Grade 10. The administration of two different levels of the test was a consequence of the implementation of functional-level testing in all three grades.

HOW WAS FUNCTIONAL-LEVEL TESTING DEFINED AND IMPLEMENTED?

Functional-level testing was defined as administering a lower level of a test than the level normally recommended by the test publisher. The rationale behind implementing functional-level testing was that a test level compatible with the abilities of the students should be used. To be able to implement functional-level testing, two characteristics of a test are necessary: (1) the two levels of the test must be comparable in content and (2) a system must exist for converting scores on one test level to scores on the other test level. Since the levels of the CTBS/S were constructed to be comparable in content and to have scale scores which allow numerical comparisons across test levels, the CTBS/S could be used for functional-level testing purposes.

The decision to implement functional-level testing in Grades 3 and 6 was initially made in 1976-77 as a result of reviewing the Fall 1975 CTBS/S data for Grades 4 and 7. In the Fall 1975 testing program, Levels 1 and 2 of the CTBS/S were administered universally in Grades 4 and 7, respectively. For fall testing, Level 1 is the level of the test normally recommended by the publisher for use in Grade 4, and Level 2 is a lower level of the test than the level normally recommended by the publisher for use in Grade 7. However, the Fall 1975 test results indicated that large percentages of 4th and 7th graders were scoring at or below a chance level. A probable reason for this phenomenon was that the levels utilized were too

difficult for a large number of South Carolina 4th and 7th grade students and, hence, were providing very little information on achievement for some students. This observation suggested that, in order for meaningful measurement to be obtained on 3rd and 6th graders, the use of test levels more compatible with the abilities of the students was necessary.

The implementation of functional-level testing continued for Grades 3 and 6 from the 1976-77 Statewide Testing Program through 1979-80 and for Grades 4, 7, and 10 in the 1980-81 program. For the 1976-77, 1977-78, and 1978-79 Statewide Testing Programs, functional-level testing was administered on a school basis. However, the 1979-80 and 1980-81 Statewide Testing Programs also offered functional-level testing on an individual student basis, allowing the appropriate level of the test to be selected for each student.

The Department of Education recommended a criterion for those districts utilizing functional-level testing on an individual student basis. The recommended criterion was based on the student's previous year's CTBS/S Reading Test data. Those students scoring above the 35th national percentile on the previous year's CTBS/S Reading Total were recommended to take the on-level test, and those students scoring at or below the 35th national percentile were recommended to take the functional-level test. In the absence of CTBS/S Reading Test data, decisions would be made by local school personnel.

WHAT WERE THE MAJOR CHANGES IN THE 1980-81 STATEWIDE TESTING PROGRAM?

The major change in the 1980-81 Statewide Testing Program was the move to testing at Grades 4, 7, and 10. Because of the changes in grade levels tested, the 1980-81 Statewide Testing Program established a new baseline year in terms of comparison of test data across years.

Two other changes occurred in the testing program for the 1980-81 school year. One change was the addition of functional-level testing at the highest grade tested, Grade 10. A second change was the move from consumable test booklets at the lowest grade tested (Grade 4) to answer sheets.

SHOULD THE RESULTS OF THE 1980-81 STATEWIDE TESTING PROGRAM
BE COMPARED WITH THE RESULTS OF PREVIOUS YEARS?

The results of the 1980-81 Statewide Testing Program are not comparable with the results from previous years because of the change in grade levels from Grades 3, 6, and 11 to Grades 4, 7, and 10. However, longitudinal comparisons may be made which compare the same students across the years from 1976-77 to 1980-81. Tests during these years utilized CTBS, Form S, and were administered during the Spring.

Although the data from the 1976-77, 1977-78, 1978-79, and 1979-80 Statewide Testing Programs are consistent and comparable, this year's data are not comparable with the data from these past four years nor with the data from any years prior to 1976-77.

WHAT TYPES OF QUESTIONS CAN THE RESULTS OF THE
STATEWIDE TESTING PROGRAM ASSIST IN ANSWERING?

The CTBS/S results can be used to assist educational decision makers in answering questions such as the following:

1. How does the achievement of an individual student in a given grade compare with the achievement of other students at the same grade level in his/her class, in the school, in the district, in the State, or in the nation?;
2. How does the achievement of a class at a given grade compare with the achievement of other classes in the school, with the achievement of the school as a whole, with the achievement of the district as a whole, with the achievement of the State as a whole, or with the achievement of the nation as a whole?;
3. How does the achievement of a school in a given grade compare with the achievement of other schools within the district, with the achievement of the district as a whole, with the achievement of the State as a whole, or with the achievement of the nation as a whole?;
4. How does the achievement of the district in a given grade compare with the achievement of the State as a whole or the achievement of the nation as a whole?; and
5. Of the content and skill areas included on the CTBS/S, in which content or skill area is achievement weakest (strongest) relative to some norm group?

HOW WERE THE RESULTS OF THE 1980-81 STATEWIDE TESTING PROGRAM REPORTED?

The results of the 1980-81 Statewide Testing Program were provided for individual students, classes, schools, districts, and the State in the form of CTBS/S score reports. The test scores on the CTBS/S score reports are explained in the CTBS/S Examiner's Manual (all levels). The following chart presents an overview of the score reports provided and the various types of test scores that were included on these CTBS/S score reports.

Test Scores Included on Each
CTBS/S Score Report

Score Report	Scores ^a										
	RS	SS	NP	LP	NQ	NS	GE	NCE	%R	%W	%O
Individual Test Record with Home Report	X	X	X			X					
Class Record Sheet		X	X			X	X				
Right Response Summary and Item Analysis									X	X	X
Frequency Distribution		X	X	X	X						
Evaluator's Summary		X	X		X		X	X			

^aRS = Raw Score
SS = Scale Score
NP = National Percentile
LP = Local Percentile
NQ = National Quarters

NS = National Stanine
GE = Grade Equivalent
NCE = Normal Curve Equivalent
%R = Percent of Items Answered Right
%W = Percent of Items Answered Wrong
%O = Percent of Items Omitted

FOR WHICH SKILL AREAS WERE TEST SCORES REPORTED?

The school results for the two different test levels used in each grade were combined to obtain school and district summary results for both levels of the CTBS/S. Therefore, in Grade 4, the results for Level 1 and Level 2 students were combined; in Grade 7, the results for Level 2 and Level 3 students were combined; and in Grade 10, the results for Level 3 and Level 4 students were combined.

The following 15 test and subtest scores were reported on each of the CTBS/S score reports.

1. Reading Vocabulary Subtest
2. Reading Comprehension Subtest
3. Reading Total
4. Spelling Subtest
5. Language Mechanics Subtest
6. Language Expression Subtest
7. Language Total
8. Mathematics Computation Subtest
9. Mathematics Concepts Subtest
10. Mathematics Applications Subtest
11. Mathematics Total
12. Battery Total
13. Reference Skills
14. Science
15. Social Studies

HOW DID THE 1981 PERFORMANCE OF STUDENTS IN SOUTH CAROLINA COMPARE WITH THE PERFORMANCE OF STUDENTS IN THE NATION?

For each of the three grade levels tested in the 1980-81 South Carolina Statewide Testing Program, comparisons between the performance of students in South Carolina and the performance of students in the nation can be made. In this section, South Carolina Spring, 1981, test scores for the skill areas at each grade level are compared to national test scores, using median national percentiles.

1981 Student Performance in Grade 4

In Table 1, the Spring, 1981, median national percentiles for 4th graders in South Carolina are presented.

Table 1
Median National Percentiles for South Carolina
Grade 4

Skill Area	1981 State Median	National Median
Reading Total	47.3	50.0
Language Total	52.7	50.0
Mathematics Total	46.9	50.0
Battery Total	47.8	50.0
Reference Skills	58.3	50.0
Science	50.3	50.0
Social Studies	50.9	50.0

The median or middle score for the national group is the 50th national percentile. Thus, the median national percentile reported for Reading Total, for example, indicates that the middle score for South Carolina 4th grade students was similar to the 47th national percentile score. If the performance of South Carolina 4th grade students had been at or above the national average in Reading Total, South Carolina 4th graders would have scored at or above the 50th national percentile.

As indicated in Table 1, the 1981 performance of South Carolina 4th grade students was above the national median for the four skill areas of Reference Skills (58.3), Language Total (52.7), Social Studies (50.9), and Science (50.3); while the performances on Reading Total (47.3), Mathematics Total (46.9), and Battery Total (47.8) were below the national median. Therefore, 4th grade performance was above or very close to the national performance in all skill areas.

1981 Student Performance in Grade 7

The median national percentiles for South Carolina Grade 7 students are presented in Table 2.

Table 2

Median National Percentiles for South Carolina
Grade 7

Skill Area	1981 State Median	National Median
Reading Total	46.8	50.0
Language Total	46.3	50.0
Mathematics Total	47.1	50.0
Battery Total	43.6	50.0
Reference Skills	57.7	50.0
Science	50.5	50.0
Social Studies	50.8	50.0

Table 2 indicates that the Spring, 1981, performance of South Carolina 7th grade students was above the national median in three of the six skill areas. Reference Skills with a median national percentile of 57.7 was the skill area of highest performance, Social Studies with a median national percentile of 50.8 was second highest, and Science with a median national percentile of 50.5 was third highest. In the other three skill areas, performance was slightly below the national median. In order of highest to lowest performance, the median performances for the other three areas were Mathematics Total (47.1), Reading Total (46.8), and Language Total (46.3). Battery Total had a median percentile of 43.6. As in the 4th grade, 7th grade performance was above or very close to the national performance in all skill areas.

1981 Student Performance in Grade 10

The median national percentiles for South Carolina 10th graders are presented in Table 3.

Table 3
Median National Percentiles for South Carolina
Grade 10

Skill Area	1981 State Median	National Median
Reading Total	37.8	50.0
Language Total	40.6	50.0
Mathematics Total	39.0	50.0
Battery Total	37.1	50.0
Reference Skills	43.4	50.0
Science	44.2	50.0
Social Studies	46.9	50.0

As indicated in Table 3, South Carolina 10th grade students scored below the median national percentile in all skill areas. Relative to the nation, the Spring, 1981, performance for South Carolina 10th graders was strongest in the skill areas of Social Studies and Science with median national percentiles of 46.9 and 44.2, respectively. The median national percentile for Reference Skills was 43.4, and the median national percentile for Language Total was 40.6. Mathematics Total and Reading Total with median national percentiles of 39.0 and 37.8, respectively, were the weakest skill areas of performance. The median national percentile for Battery Total was 37.1.

HOW DID THE ACHIEVEMENT OF 1981 SOUTH CAROLINA
STUDENTS COMPARE ACROSS GRADES?

In Table 4, the Spring, 1981, median national percentiles for students in Grades 4, 7, and 10 in South Carolina are presented, as well as the change in national percentiles between Grades 4 and 7 and between Grades 7 and Grade 10.

Table 4
Median National Percentile Differences
Grades 4 and 7
and
Grades 7 and 10

Skill Area	Grade 4	Grade 7	Grade 10	Percentile Differences between Grade 4 and Grade 7	Percentile Differences between Grade 7 and Grade 10
Reading Total	47.3	46.8	37.8	-0.5	-9.0
Language Total	52.7	46.3	40.6	-6.4	-5.7
Mathematics Total	46.9	47.1	39.0	+0.2	-8.1
Battery Total	47.8	43.6	37.1	-4.2	-6.5
Reference Skills	58.3	57.7	43.4	-0.6	-14.3
Science	50.3	50.5	44.2	+0.2	-6.3
Social Studies	50.9	50.8	46.9	-0.1	-3.9

Performances in Grades 4 and 7 more closely approximate the national performance than does performance in Grade 10. Of the basic skill areas of Reading, Language, and Mathematics, performances in Grades 4 and 7 are at the 46th national percentile or higher. Even higher median national percentiles occurred at Grades 4 and 7 in the skill areas of Reference Skills, Science, and Social Studies, all of which were above the national median of 50.0. There were only slight decreases in the percentiles from Grades 4 to 7 in Reading, Language, Reference Skills, and Social Studies with very slight increases in Mathematics and Science.

Unfortunately, high school performance in Grade 10 fell off sharply when compared with performance in Grade 7. Although Language performance dropped 5.7 national percentiles, Mathematics and Reading performance fell 8.1 and 9.0 percentile points, respectively. Median national percentiles in other skill areas declined as well: Social Studies fell 3.9, Science fell 6.3, and Reference Skills declined 14.3 percentiles.

HOW DID THE SPRING, 1981, PERFORMANCE COMPARE
WITH THE SPRING, 1980, AND SPRING, 1977, PERFORMANCES
FOR THE SAME GROUP OF SOUTH CAROLINA STUDENTS?

Since the Statewide Testing Program was administered to 3rd and 6th graders in 1976-77 and 1979-80 and to 4th, 7th, and 10th graders in 1980-81, a unique opportunity was presented to observe the change in performance between the same student populations after one year, three years, and/or four years. Therefore, the following discussions focus on performance comparisons between 3rd graders in 1980 and 4th graders in 1981; among 3rd graders in 1977, 6th graders in 1980, and 7th graders in 1981; and between 6th graders in 1977 and 10th graders in 1981.

Comparison of 1980 3rd Graders' Performance with Their Performance as 1981 4th Graders

The percentages of students scoring above the national average as 3rd graders in 1980 is compared with the percentages of these same students scoring above the national average as 4th graders in 1981 in Table 5. The percentage for a particular skill area are obtained by adding the percentages of students scoring in the two upper quarters of the national distribution (the upper quarter and the upper middle quarter). Fifty percent of the nation's 3rd and 4th graders scored above the national median. Therefore, if 50 percent of South Carolina 3rd or 4th graders scored above the national median, those South Carolina students would be performing at the national norm. If, however, more than 50 percent of South Carolina students scored above the national median, South Carolina would be scoring above the nation.

Table 5

Comparison of 1980 3rd Graders' Performance
with Their Performance as 1981 4th Graders

Skill Area	Percentages above 50th National Percentile			
	Nation	Grade 3 1980	Grade 4 1981	Percentage Change from 1980 to 1981
Reading Total	50.0%	46.8%	47.8%	+1.0%
Language Total	50.0%	50.0%	52.5%	+2.5%
Mathematics Total	50.0%	44.9%	46.7%	+1.8%
Battery Total	50.0%	44.9%	47.0%	+2.1%
Reference Skills ^a	50.0%	NA	59.9%	NA
Science	50.0%	51.2%	48.9%	-2.3%
Social Studies	50.0%	48.9%	50.7%	+1.8%

^aSince Level C of the CTBS/S does not contain a Reference Skills Test, combined data are not available for Reference Skills at Grade 3.

The magnitude of change between these students as 3rd graders in Spring, 1980, and as 4th graders in Spring, 1981, is no greater than ± 2.5 . From the available data all skill areas registered slight increases except Science which showed a slight decline of 2.3 percentage points. The largest increases were in the areas of Language Total and Battery Total which increased 2.5 and 2.1 percentages, respectively. Other increases were in the skill areas of Mathematics Total (1.8 percent), Social Studies (1.8 percent), and Reading Total (1.0 percent).

Comparison of 1977 3rd Graders' Performance with Their Performance as 1980
6th Graders and 1981 7th Graders

The percentages of South Carolina 3rd graders in 1977 scoring above the median national percentile of 50 compared with the percentages of these same students as 6th graders in 1980 and 7th graders in 1981 are presented in Table 6.

Table 6

Comparison of 1977 3rd Graders' Performance
with Their Performance as 1980 6th Graders and
1981 7th Graders

Skill Area	Percentages above 50th National Percentile				
	Grade 3 1977	Grade 6 1980	Grade 7 1981	Percentage Change from 1977 to 1980	Percentage Change from 1980 to 1981
Reading Total	40.9%	43.8%	45.7%	+2.9%	+1.9%
Language Total	43.4%	46.6%	45.2%	+3.2%	-1.4%
Mathematics Total	36.6%	39.8%	46.2%	+3.2%	+6.4%
Battery Total	39.6%	42.5%	42.0%	+2.9%	-0.5%
Reference Skills ^a	NA	52.7%	53.1%	NA	+0.4%
Science	43.4%	50.6%	50.2%	+7.2%	-0.4%
Social Studies	44.2%	45.8%	50.7%	+1.6%	+4.9%

^aSince Level C of the CTBS does not contain a Reference Skills Test, combined data are not available for Reference Skills at Grade 3.

Although the groups are not identical because of student migration, the groups should be quite comparable. Percentages of students scoring above the national average increased in Reading Total, Mathematics Total, and Social Studies from Grade 3 to Grade 6 and from Grade 6 to Grade 7. Performance improved from 3rd grade in 1977 to 6th grade in 1980 in all areas, ranging from 1.6 percent in Social Studies to 7.2 percent in Science. Although there were gains in the percentages in all other skill areas, these gains were more modest than the 7.2 percent gain in Science. From Grade 6 to Grade 7, there were slight increases or slight decreases in percentages for the skill areas with the exception of Mathematics Total and

Social Studies which experienced increases of 6.4 percent and 4.9 percent, respectively. The increase of 7.2 percent in Science from Grades 3 to 6 and the increases of 6.4 percent in Mathematics and 4.9 percent in Social Studies from Grades 6 to 7 were in the desired direction. However, these changes are somewhat suspect, especially the Mathematics and Social Studies increases, since they occurred for essentially the same group of students after only one year. Perhaps the amount of instruction statewide in Science over three years and in Mathematics and Social Studies over one year increased dramatically. Another possibility is that the test levels for the three years of testing were not exactly comparable.

Comparison of 1977 6th Graders' Performance with Their Performance as 1981 10th Graders

Table 7 provides a comparison of 6th graders in 1977 with their performance as 10th graders in 1981.

Table 7

Comparison of 1977 6th Graders' Performance
with Their Performance as 1981 10th Graders

Skill Area	Percentages above 50th National Percentile		
	Grade 6 1977	Grade 10 1981	Percentage Change from 1977 to 1981
Reading Total	38.0%	37.7%	-0.3%
Language Total	41.8%	39.8%	-2.0%
Mathematics Total	32.4%	38.1%	+5.7%
Battery Total	36.7%	35.8%	-0.9%
Reference Skills	45.5%	48.1%	+2.6%
Science	45.9%	45.2%	-0.7%
Social Studies	40.9%	44.7%	+3.8%

Mathematics Total showed the greatest increase across the four years at 5.7 percent, followed by Social Studies with an increase of 3.8 percent. Other areas registered modest changes varying from an increase of 2.6 percent in Reference Skills to a decrease of 2.0 percent in Language Total. These changes were similar to those observed between the 1980 6th graders and 1981 7th graders in that Mathematics Total and Social Studies were the areas of large increases.

Appendix A

Summary of the Results of the
1980-81 South Carolina Statewide Testing Program

Table 1
Test Scores for South Carolina Students
Grades 4, 7, and 10
Spring, 1981

Grade	Student Group	Statistic ^b	South Carolina							
			National Norm	Reading	Language	Mathematics	Battery Total	Reference Skills	Science	Social Studies
4	All Students (n=46,601) ^a	Median GE	4.7	4.5	4.9	4.5	4.5	5.3	4.7	4.7
		Mean SS		420.3	445.1	393.5	395.0	464.7	440.8	435.5
		Median NP	50	47.3	52.7	46.9	47.8	58.3	50.3	50.9
	Title I Students (n=9,240) ^a	Median GE	NAC	3.0	3.1	3.5	3.3	3.3	3.3	3.2
		Mean SS	NAC	346.9	376.9	348.6	325.4	377.1	373.0	369.4
		Median NP	NAC	17.4	22.3	24.4	20.9	22.9	23.5	21.8
7	All Students (n=44,309) ^a	Median GE	7.7	7.5	7.1	7.4	7.2	8.8	7.8	7.7
		Mean SS		508.4	502.4	486.4	489.7	550.1	510.6	509.0
		Median NP	50	46.8	46.3	47.1	43.6	57.7	50.5	50.8
	Title I Students (n=6,885) ^a	Median GE	NAC	4.5	4.1	5.2	4.7	4.7	4.5	4.7
		Mean SS	NAC	414.9	418.7	415.0	394.9	442.1	432.7	427.2
		Median NP	NAC	16.0	17.6	20.0	16.0	23.1	20.5	22.1
10	All Students (n=43,843) ^a	Median GE	10.7	9.8	10.1	9.8	9.8	10.0	10.1	10.4
		Mean SS		579.7	567.2	562.4	576.6	607.4	574.6	577.1
		Median NP	50	37.8	40.6	39.0	37.1	43.4	44.2	46.9

^an=Total number of students completing any part of the test battery.

^bGE=Grade Equivalent
SS=Scale Score
NP=National Percentile

^cCTBS/5 national norms are not available for Title I students.

Table 2
Percentages of South Carolina Students in Each Quarter on the National Normative Distribution
Grades 4, 7, and 10
Spring, 1981

Grade	Student Group	National Percentiles ^b	South Carolina						
			Reading	Language	Mathematics	Battery Total	Reference Skills	Science	Social Studies
4	All Students (n=46,601) ^a	76-99	22.0	24.7	22.0	22.6	33.1	24.7	23.2
		51-75	25.3	27.8	24.7	24.4	26.8	24.2	27.5
		26-50	26.2	26.7	31.4	30.4	19.9	26.9	24.5
		1-25	26.0	20.8	22.0	22.6	20.2	24.3	24.8
	Title I Students (n= 9,240) ^a	76-99	.8	1.1	1.0	.4	4.1	1.9	.9
		51-75	6.3	9.4	7.7	4.3	14.4	9.2	9.6
		26-50	26.2	33.2	38.2	32.8	29.7	31.5	31.8
		1-25	66.6	56.2	53.1	62.6	51.8	57.5	57.3
7	All Students (n=44,300) ^a	76-99	19.8	19.6	16.5	19.5	27.8	19.6	24.3
		51-75	25.9	25.6	29.7	22.5	25.3	30.6	26.4
		26-50	27.9	30.4	27.8	31.3	26.1	24.3	25.4
		1-25	26.5	24.4	26.0	26.7	20.8	25.6	23.9
	Title I Students (n= 6,885) ^a	76-99	.7	.5	.5	.3	2.8	1.0	1.0
		51-75	4.0	4.5	5.8	1.8	9.0	8.9	7.5
		26-50	23.0	27.1	28.9	22.6	31.8	26.8	32.0
		1-25	72.3	67.9	64.8	75.4	56.5	63.4	59.5
10	All Students (3,843) ^a	76-99	16.7	19.2	13.3	15.1	18.5	21.1	19.5
		51-75	21.0	20.6	24.8	20.7	29.6	24.1	25.2
		26-50	25.5	26.7	28.2	27.5	22.5	26.2	27.7
		1-25	36.9	33.6	33.6	36.7	29.4	28.6	27.6

^an=Total number of students completing any part of the test battery.

^b76-99 = Percent in upper quarter
51-75 = Percent in upper middle quarter
26-50 = Percent in lower middle quarter
1-25 = Percent in lower quarter

Table 3

Test Scores for South Carolina Students
 Percentages above 50th National Percentile and Median Grade Equivalents
 Spring, 1981
 All Students

Grade		Reading	Language	Mathematics	Battery Total	Reference Skills	Science	Social Studies
4	%	47.8	52.5	46.7	47.0	59.9	48.9	50.7
	GE	4.5	4.9	4.5	4.5	5.3	4.7	4.7
7	%	45.7	45.2	46.2	42.0	53.1	50.2	50.7
	GE	7.5	7.1	7.4	7.2	8.8	7.8	7.7
10	%	37.7	39.8	38.1	35.8	48.1	45.2	44.7
	GE	9.8	10.1	9.8	9.8	10.0	10.1	10.4